

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An electro-luminescence display device, comprising:
 - a first pixel cell ~~displaying which displays~~ a first color, the first pixel cell having a first electro-luminescence diode with a first electrical characteristic;
 - a second pixel cell ~~displaying which displays~~ a second color, the second pixel cell having a second electro-luminescence diode with a second electrical characteristic;
 - a first driving circuit ~~having a terminal thereof connected to a power supply line, said first driving circuit receiving~~ which receives a first driving voltage and ~~applying~~ applies a first driving current ~~from said power supply line~~ to the first pixel cell based on the first driving voltage and the first electrical characteristic of the first electro-luminescence diode; and
 - a second driving circuit ~~having a terminal thereof connected to the power supply line, said second driving circuit receiving~~ which receives a second driving voltage equal to the first driving voltage and ~~applying~~ applies a second driving current ~~from said power supply line different from the first driving circuit~~ to the second pixel cell based on the second driving voltage and the second electrical characteristic of the second electro-luminescence diode,
- wherein:
- ~~the first and second driving voltages are equal, and the values of the first and second driving currents are determined based on an electrical characteristic of an electro-luminescence diode provided in each of the first and second pixels of said electro-luminescence display device, respectively, whereby the first and second pixel cells are independently driven.~~

2. (Original) The device of claim 1, wherein the first driving circuit and the second driving circuit have a different structure.

3. (Currently Amended) The device of claim 2, wherein:
the first driving circuit comprises a first transistor having a first channel width and a first channel length, the first channel width to the first channel length ~~forming~~being a first ratio; and
the second driving circuit comprises a second transistor having a second channel width and a second channel length, the second channel width to the second channel length ~~forming~~being a second ratio, the first and second ratios being different.

4. (Original) The device of claim 3, wherein the first pixel cell is a R pixel cell and the second pixel cell is a B pixel cell, and the first ratio is greater than the second ratio.

5. (Original) The device of claim 3, wherein the first pixel cell is a R pixel cell, and the second pixel cell is a G pixel cell, and the first ratio is greater than the second ratio.

6. (Original) The device of claim 3, wherein the first pixel cell is a B pixel cell, and the second pixel cell is a G pixel cell.

7. (Original) The device of claim 1, wherein the first pixel cell is a R pixel cell and the second pixel cell is a B pixel cell, and first driving current is greater than the second driving current.

8. (Original) The device of claim 1, wherein the first pixel cell is a R pixel cell and the second pixel cell is a G pixel cell, and the first driving current is greater than the second driving current.

9. (Original) The device of claim 1, wherein the first pixel cell is a B pixel cell and a second pixel cell is a G pixel cell, and the first driving current is greater than the second driving current.

10. (Currently Amended) The device of claim 1, further comprising:
a third pixel cell ~~displaying which displays~~ a third color, the third pixel cell having a third electro-luminescence diode with a third electrical characteristic; and

a third driving circuit ~~receiving which receives~~ a third driving voltage and applying
applies a third driving current to the third pixel cell based on the third driving voltage, and the third electrical characteristic of the third electro-luminescence diode,

wherein the first, second and third driving voltages are equal, and the first, second and third driving currents are different, whereby the first, second and third pixel cells are independently driven.

11. (Original) The device of claim 10, wherein the first, second and third driving circuits have a different structure, respectively.

12. (Currently Amended) The device of claim 11, wherein:

the first driving circuit comprises a first transistor having a first channel width and a first channel length, the first channel width to the first channel length ~~forming~~ being a first ratio;

the second driving circuit comprises a second transistor having a second channel width and a second channel length, the second channel width to the second channel length ~~forming~~ being a second ratio; and

the third driving circuit comprises a third transistor having a third channel width and a third channel length, the third channel width to the third channel length ~~forming~~ being a third ratio,

the first, second and third ratios being different, respectively.

13. (Original) The device of claim 12, wherein the first, second and third pixel cells are R, B, G pixel cells, respectively.

14. (Previously Presented) The device of claim 10, wherein:

the first, second and third pixel cells are R, B and G pixel cells, respectively;

the first current is greater than the second current; and

the second current is greater than the third current.

15. (Original) The device of claim 13, wherein a brightness level of the first, second and third colors are substantially equal.

16. (Currently Amended) An electro-luminescence display device, comprising:

a first electro-luminescence diode for a first pixel cell, the first electro-luminescence diode having a first electrical characteristic;

a first driving circuit which drives the first electro-luminescence diode, the first driving circuit including a first transistor having a terminal thereof connected to a power supply line, said first transistor having a first channel width and a first channel length, the first channel width to the first channel length forming being a first ratio based on first the electrical characteristic of the first electro-luminescence diode; and

a second electro-luminescence diode for a second pixel cell, the second electro-luminescence diode having a second electrical characteristic; and

a second driving circuit which drives the second electro-luminescence diode, the second driving circuit including a second transistor having a terminal thereof connected to the power supply line, said second transistor having a second channel width and a second channel length, the second channel width to the second channel length forming being a second ratio different from the first ratio, the second ratio being based on the second electrical characteristic of the second electro-luminescence diode, the first ratio being different from the second ratio and the first and second ratios being determined based on an electrical characteristic of an electro-luminescence diode, the electro-luminescence diode being provided in each of the first and second pixels of said electro-luminescence display device.

17. (Previously Presented) The device of claim 16, wherein:

the first and second driving circuits drive the first and second pixel cells, respectively;

the first pixel cell is a R pixel cell and the second pixel cell is a B pixel cell; and
the first ratio is greater than the second ratio.

18. (Currently Amended) The device of claim 16, further comprising:

a third electro-luminescence diode for a third pixel cell, the third electro-luminescence diode having a third electrical characteristic; and

a third driving circuit which drives the third electro-luminescence diode, the third driving circuit including a third transistor having a third channel width and a third channel length, the third channel width to the third channel length forming being a third ratio, the third ratio being based on the third electrical characteristic of the third electro-luminescence diode,

the first, second and third ratios being different, respectively.

19. (Previously Presented) The device of claim 18, wherein:

the first, second and third driving circuits drive the first, second and third pixel cells, respectively;

the first pixel cell is a R pixel cell, the second pixel cell is a B pixel cell and the third pixel cell is a G pixel cell; and

the first ratio is greater than the second ratio, and the second ratio is greater than the third ratio.

20. (Currently Amended) A method of forming an electro-luminescence display device, comprising:

forming a plurality of gate lines and a plurality of data lines to form a lattice configuration;

forming a plurality of pixel cells between the gate lines and the data lines, each pixel cell including an electro-luminescence diode with an electrical characteristic;

forming a driving transistor for each pixel cell based on the electrical characteristic of the electro-luminescence diode of each pixel cell, ~~said driving transistor receiving a current from a common power supply line and~~ so that applying different driving currents from the driving transistors are applied to the pixel cells having different colors such that the for independently driving the pixel cells having different colors are independently driven, wherein the values of the currents are determined based on an electrical characteristic of an electro-luminescence diode provided in each pixel cell of said electro-luminescence display device; and

forming a data driving circuit commonly connected to the data lines to provide an identical driving voltage to each pixel cell.

21. (Original) The method of claim 20, further comprising a step of forming a plurality of pixel groups, each group having an R pixel cell, a G pixel cell, and a B pixel cell.

22. (Original) The method of claim 21, wherein the driving transistor for the R pixel cell, for the G pixel cell, and for the B pixel cell are formed differently.

23. (Original) The method of claim 22, wherein the driving transistors are formed to have different channel widths and channel lengths.

24. (Original) The method of claim 23, wherein the channel widths and channel lengths are determined based on whether the driving transistor is for the R pixel cell, for the G pixel cell, or for the B pixel cell.

25. (Currently Amended) A method of forming an electro-luminescence display device, comprising:

forming a first pixel cell ~~which displaying~~ displays a first color, which includes forming a first electro-luminescence diode with a first electrical characteristic;

forming a second pixel cell ~~displaying-which displays~~ a second color, which includes forming a second electro-luminescence diode with a second electrical characteristic;

forming a first driving circuit ~~which receiving-receives~~ a first driving voltage, which includes forming a first transistor having a first channel width and a first channel length, the first channel width to the first channel length being a first ratio based on the first electrical characteristic of the first electro-luminescence diode; and

forming a second driving circuit ~~which receiving-receives~~ a second driving voltage equal to the first driving voltage, which includes forming a second transistor having a second channel width and a second channel length, the second channel width to the second channel length being a second ratio different from the first ratio and based on the second electrical characteristic of the second electro-luminescence diode;

~~wherein:~~

~~the first driving circuit and the second driving circuit have a different structure;~~

~~the first driving circuit comprises a first transistor having a terminal thereof connected to a power supply line, said first transistor having a first channel width and a first channel length, the first channel width to the first channel length forming a first ratio; and~~

~~the second driving circuit comprises a second transistor having a terminal thereof connected to the power supply line, said second transistor having a second channel width and a second channel length, the second channel width to the second channel length forming a second ratio,~~

~~the first and second ratios being based on an electrical characteristic of an electro-luminescence diode provided in each of the first and second pixels of said electro-luminescence device, respectively.~~

26. (Currently Amended) A method of forming a electro-luminescence display device, comprising:

forming a first electro-luminescence diode for a first pixel cell, the first electro-luminescence diode having a first electrical characteristic;

forming a first driving circuit including forming a first transistor ~~having a terminal thereof connected to a power supply line, said first transistor having a first channel width and a first channel length~~ for driving the first electro-luminescence diode, the first channel width to the first channel length ~~forming being~~ a first ratio based on the first electrical characteristic of the first electro-luminescence diode; and

forming a second electro-luminescence diode for a second pixel cell, the second electro-luminescence diode having a second electrical characteristic;

forming a second driving circuit including forming a second transistor ~~having a terminal thereof connected to the power supply line, said second transistor having~~ a second channel width and a second channel length for driving the second electro-luminescence diode, the second channel width to the second channel length ~~forming being~~ a second ratio different from the first ratio and based on the second electrical characteristic of the second electro-luminescence diode; ~~the first ratio being different from the second ratio and the first and second ratios are respectively determined based on an electrical characteristic of an electro-luminescence diode in said electro-luminescence display device.~~

27. (Previously Presented) The method of driving an electro-luminescence display device as recited in claim 1, the method comprising:

applying a first driving current to a first pixel cell based on a first driving voltage; and
applying a second driving current to a second pixel cell based on a second driving voltage,

wherein the first and second driving voltages are equal, and the first and second driving currents are different.

28. (Previously Presented) The method of driving an electro-luminescence display device as recited in claim 16, the method comprising:

driving a first driving circuit including a first transistor having a first channel width and a first channel length, based on a first ratio formed by the first channel width to the first channel length; and

driving a second driving circuit including a second transistor having a second channel width and a second channel length, based on a second ratio formed by the second channel width to the second channel length, the first ratio being different from the second ratio.